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EXAMINER

NGUYEN, KIET TUAN

ART UNIT	PAPER NUMBER
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2881

12

DATE MAILED: 11/20/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/226,346

Applicant(s)

GAT et al.

Examiner

K. NGUYEN

Group Art Unit

2881

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 08-28-01
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 32-73 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 32-73 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
  - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 12
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

***Objected Informalities***

The disclosure is objected to because of the following informalities:

**In The Claims**

Claim 48, line 1, "where in" should be changed to -- wherein--.

Claim 55, line 1, "where in" should be changed to -- wherein--.

Appropriate correction is required.

***Objected Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the holder for rotating the wafer as recited in claims 33, 44, 52 and 61 must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

***Rejection Under 35 U.S.C. 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 32, 35, 39-42, 51 and 53-57 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hauser et al., Lee et al., Moslehi et al. (5,446,825), Moslehi (5,635,409), or Chiba et al.

Claims 32, 39-42, 51 and 54-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Vosen. (See the reasons as indicated in the previous office action dated March 28, 2001 in Paper No. 6). c lc

Claims 32, 35, 39-42, 51 and 53-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Moslehi et al. (5,367,606).

Moslehi et al. (5,367,606) discloses, in figs. 1-4, an apparatus for heat treating wafers. The apparatus includes a thermal processing chamber 126 for containing a wafer 60; a heating device 130 including a plurality of heating lamps 220 which are tungsten halogen lamps (see col. 6, line 36) and dummy lamps 222 forming concentric rings and at least one tuning lamp of the heating lamps for uniformly heating the wafer (see col. 4, lines 17-32; and col. 6, lines 58-62); a reflective plate 230; temperature sensors 206 and 211; a movable support and a controller system 150.

***Rejection Under 35 U.S.C. 103(a)***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 33-38, 43-50, 52-53 and 58-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vosen. (See the reasons as indicated in the previous office action dated March 28, 2001 in Paper No. 6).

Claims 33-34, 36-38, 43-50, 52 and 58-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moslehi et al. (5,367,606).

Moslehi et al. (5,367,606) discloses all the features as discussed above except the holder for rotating the wafer as recited in claims 33, 44, 52 and 61; a focusing lens as recited in claims 34 and 37; a tiltable lever arm as recited in claims 36, 38 and 63; a laser diode as recited in claims 43 and 58; a prismatic surface as recited in claim 60; a fixed pitch and a fixed facet angle as recited in claim 64; a fixed pitch and a variable facet angle as recited in claim 65; a ruled prismatic surface as recited in claim 69; a high reflective material having a reflectivity of at least 0.9 as recited in claim 72; and a diffuse surface as recited in claim 73.

Using the holder for rotating the wafer is considered to be obvious variation in design, since it is well known in the art to use the holding means for rotating the wafer, thus would have been obvious to one skilled in the art to use the holder for rotating the wafer in the Moslehi et al. apparatus for processing the wafer.

Using the focusing lens is considered to be obvious variation in design, since the focussing lens is well known in the art and in the optical system, thus would have been obvious to one skilled in the art to use the focusing lens in the Moslehi et al. apparatus for focussing the light beam on the wafer.

Using the tiltable lever arm is also considered to be obvious variation in design, since it is well known in the art to use the tiltable lever arm for tilting an element, thus would have been obvious to one skilled in the art to use the tiltable lever arm in the Moslehi et al. apparatus for scanning the light beam on the wafer.

Using the laser diode is considered to be obvious variation in design, since the laser diode is well known in the art for producing light, thus would have been obvious to one skilled in the art to use the laser diode in the Moslehi et al. apparatus for heating the wafer.

Using the prismatic surface which includes the ruled prismatic surface, the fixed pitch and the fixed facet angle, or the fixed pitch and the variable facet angle; or the diffuse surface for reflecting light is considered to be obvious variation in design, since the ruled prismatic surface, the fixed pitch and the fixed facet angle, the fixed pitch and the variable facet angle, or the diffuse surface is well known in the art and in the optical system for reflecting light, thus would have been

obvious to one skilled in the art to use the ruled prismatic surface, the fixed pitch and the fixed facet angle, the fixed pitch and the variable facet angle, or the diffuse surface in the Moslehi et al. apparatus for directing the light on the wafer.

Applying the reflective material having a reflectivity of at least 0.9 is considered to be obvious variation in design, since the reflective material having a reflectivity of at least 0.9 is well known in the art and in the optical system for reflecting light, thus would have been obvious to one skilled in the art to apply the reflective material having a reflectivity of at least 0.9 in the Moslehi et al. apparatus for directing the light on the wafer.

Applicant's arguments filed on August 28, 2001 have been fully considered but they are not persuasive in view of the foregoing reasons.

***Remarks***

Vosen (5,930,456) and the inventors in the current application are different. Therefore, an affidavit or declaration under 37 CFR 1.131 is filed to overcome the Vosen reference (5,930,456).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner *Kiet T. Nguyen* whose telephone number is (703) 308-4855.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Papers related to Art Unit 2881 applications **only** may be submitted to Art Unit 2881 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Art Unit 2881 Fax Center number is (703) 308-7723.

***K.T.N/Primary***  
November 10, 2001

  
KIET T. NGUYEN  
PRIMARY EXAMINER